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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/063,942	05/28/2002	King-Tung Huang	ACIP0015USA	9495

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NAIPO (NORTH AMERICA INTERNATIONAL PATENT OFFICE)  
P.O. BOX 506  
MERRIFIELD, VA 22116

EXAMINER

CHANG, YEAN HSI

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 10/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/063,942	HUANG, KING-TUNG	
	<b>Examiner</b>	<b>Art Unit</b>	
	Yean-Hsi Chang	2835	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 August 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6,8-11 and 13-19 is/are rejected.
- 7) ☒ Claim(s) 4,7 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein et al. (US 6,186,800 B1).

Klein teaches a structure for mounting a circuit board (2, fig. 1) to a housing (3, fig. 1) of data processing device (1, fig. 1), comprising:

- A mounting post (10a, fig. 4) secured to the circuit board (see col. 5, lines 44-51) and having a groove (18, fig. 4) formed on outer surface thereof (claim 1)
- A retaining unit (9a, fig. 4) having a slot (11a, fig. 4) with an open end (13, fig. 4) for receiving the mounting post through the groove along a direction parallel to a surface of the housing (shown in fig. 1; also see col. 5, lines 15-24) (claim 1)
- Wherein the housing, the retaining unit and the mounting post are made of metal (see col. 4, lines 49-54, and col. 5, lines 21-24; well known material for electrical connection is metal) (claim 3)

- Wherein the circuit board has a through hole (21, fig. 4) for receiving one end (19a, fig. 4) of the mounting post and the mounting post is secured to the circuit board at the through hole (see col. 5, lines 38-62) (claims 6 and 8)

Klein fails to teach the retaining unit being provided on a surface of the housing.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Klein with a retaining unit provided on a surface of the housing, since it has been held that a mere reversal of the essential working parts of a device involves only routine skill in the art. See MPEP §2144.04 VI A.

3. Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein et al. in view of Scholder et al. (US 5,490,038).

Klein discloses the claimed invention except a stopper provided on the housing.

Scholder teaches a stopper (66, fig. 3) provided on a housing (16, fig. 3) of a data processing device (see col. 3, lines 2-6) for stopping a circuit board (12, fig. 3) from moving out of the housing along a direction parallel to a surface (surface of 14, fig. 3) of the housing when the circuit board is installed, comprising a movable rod (68, fig. 3) being movable from a first position (shown in fig. 3) to stop the circuit board and a second position (not shown) to release the circuit board by a spring (not shown, see col. 3, lines 60-62).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Klein with the stopper taught by Scholder so that the circuit board may be firmly and stably installed in position.

4. Claims 9-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein et al. in view of Scholder et al.

Klein discloses the claimed invention as discussed in paragraph 2, hereinabove, except a stopper provided on the housing of the data processing device.

Scholder teaches a stopper (66, fig. 3) provided on a housing (16, fig. 3) of a data processing device (see col. 3, lines 2-6) for stopping a circuit board (12, fig. 3) from moving out of the housing along a direction parallel to a surface (surface of 14, fig. 3) of the housing when the circuit board is installed, comprising a movable rod (68, fig. 3) being movable from a first position (shown in fig. 3) to stop the circuit board and a second position (not shown) to release the circuit board by a spring (not shown, see col. 3, lines 60-62). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Klein with the stopper taught by Scholder so that the circuit board may be firmly and stably installed in position.

5. Claims 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein et al. in view of Scholder et al.

Klein teaches a data processing device (1, fig. 1) comprising:

- A circuit board (2, fig. 1) (claims 14 and 17)
- A mounting post (10a, fig. 4) being secured to the circuit board (see col. 5, lines 44-51) and having a groove (18, fig. 4) formed on outer surface thereof (claims 14 and 17)

- A housing (3, fig. 1) having a surface provided with a retaining unit (9a, fig. 4) having a slot (11a, fig. 4) with an open end (13, fig. 4) for receiving the mounting post through the groove along a direction parallel to a surface of the housing (shown in fig. 1; also see col. 5, lines 15-24) (claims 14 and 17)
- Wherein the housing, the retaining unit and the mounting post are made of metal (see col. 4, lines 49-54, and col. 5, lines 21-24; well known material for electrical connection is metal) (claim 19)
- Wherein the circuit board has a through hole (21, fig. 4) for communicating with a threaded hole (22, fig. 4) of one end (19a, fig. 4) of the mounting post and the mounting post is secured to the circuit board at the through hole (see col. 5, lines 38-62) (claims 15-16)

Regarding claims 14 and 17, Klein fails to teach a plurality of retaining units being provided on a surface of the housing. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Klein with a plurality of retaining units provided on the surface of the housing, since it has been held that a mere reversal and duplication of the essential working parts of a device involves only routine skill in the art. See MPEP §2144.04 VI A & B.

Regarding claims 14 and 18, Klein discloses the claimed invention except a stopper provided on the housing.

Scholder teaches a stopper (66, fig. 3) provided on a housing (16, fig. 3) of a data processing device (see col. 3, lines 2-6) for stopping a circuit board (12, fig. 3) from moving out of the housing along a direction parallel to a surface (surface of 14, fig. 3) of

the housing when the circuit board is installed, comprising a movable rod (68, fig. 3) being movable from a first position (shown in fig. 3) to stop the circuit board and a second position (not shown) to release the circuit board by a spring (not shown, see col. 3, lines 60-62).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Klein with the stopper taught by Scholder so that the circuit board may be firmly and stably installed in position.

***Allowable Subject Matter***

6. Claims 4,7 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The best prior art of record, Klein et al. (US 6,186,800 B1), and Scholder et al. (US 5,490,038), taken alone or in combination fails to teach or reasonably suggest a structure for mounting a circuit board to a housing of a data processing device, comprising a retaining unit being integrally formed with the housing as set forth in claim 4; and the retaining unit being stamped out from the housing as set forth in claims 7 and 12.

***Response to Arguments***

8. Applicant's arguments filed 5 August 2003 have been fully considered but they are not persuasive. A mounting post secured to a circuit board by a screw may be considered as permanently secured.

***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Correspondence***



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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yean-Hsi Chang whose telephone number is (703) 306-5798. The examiner can normally be reached on 07:30-16:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (703) 308-4815. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3431 for regular communications and for After Final communications. There are RightFAX numbers and provide the fax sender with an auto-reply fax verifying receipt by the USPTO: Before-Final (703-872-9318) and After-Final (703-872-9319).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-8558.

Yean-Hsi Chang  
Patent Examiner  
Art Unit: 2835  
September 30, 2003

  
**DARREN SCHUBERG**  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800